ABSTRACT OF THE DISCLOSURE

A method for a predicting golfer's performance is disclosed herein. The method inputs the pre-impact swing properties of a golfer, a plurality of mass properties of a first golf club, and a plurality of mass properties of a first golf ball into a rigid body code. Ball launch parameters are generated from the rigid body. The ball launch parameters, a plurality of atmospheric conditions and lift and drag properties of the golf ball are inputted into a trajectory code. This trajectory code is used to predict the performance of a golf ball if struck by the golfer with the golf club under the atmospheric conditions. The method can then predict the performance of the golf ball if struck by the golfer with a different golf club. The method and system of the present invention predict the performance of the golf ball without the golfer actually striking the golf ball.